## **ABSTRACT**

The present disclosure provides a method for determining the probability of a patient burn under a return electrode in a monopolar electrosurgical system comprising calculating a heating factor adjacent the return electrode utilizing a first algorithm, calculating a cooling factor adjacent the return electrode utilizing a second algorithm, subtracting the calculated cooling factor from the calculated heating factor to obtain a difference value, comparing the difference value to a threshold value, and adjusting the power dependent on the relationship of the difference value to the threshold value.